UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/330,769 | 06/11/1999 | WAYNE E. BRETL | 7081 | 9810 |

28574 7590 07/10/2007

ZENITH ELECTRONICS CORPORATION
2000 MILLBROOK DRIVE
LINCOLNSHIRE, IL 60069

| EXAMINER |
|---|
| RAO, ANAND SHASHIKANT |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2621 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 07/10/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/330,769 | BRETL ET AL. | |
| | Examiner | Art Unit | |
| | Andy S. Rao | 2621 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *62-111* is/are pending in the application.

4a) Of the above claim(s) *See Continuation Sheet* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *62,64,70,74,75,81-84,88,90,96,100,101 and 107-111* is/are rejected.

7)☒ Claim(s) *66, 76, 92, 102* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 63,65,67-69,71-73,77-80,89,91,93-95,97-99 and 103-106.

**DETAILED ACTION**

***Response to Amendment***

1. As per the Applicant's instructions in the Amendment of 3/5/07, claims 1-61 and 85-87 have been canceled, and claims 89-111 have been added.

2. Claims 63, 65, 67-69, 71-73 and 77-80 are withdrawn from consideration as the result of the Response of the Election requirement of 2/21/02 which elected the species of figures 8-9, and established that claims 62, 64, 66, 70, 74-76, and 81-83 read on the elected species. With respect to newly added claims 89-111, it is noted that claims 89, 91, 93-95, 97-99, 103-106 correspond on a word for word basis, respectively, to claims 63, 65, 67-69, 71-73 and 77-80 which were directed towards non-elected species, and as such, claims 89, 91, 93-95, 97-99, 103-106 are also withdrawn from consideration. However, newly added claims 90, 92, 96, 100-102, and 107-111, since they correspond on a word for word basis, respectively, to claims already examined claims 62, 64, 66, 70, 74-76, 81-84, and 88 directed towards the elected species of figures 8-9, and will be examined as to their merits.

3. Applicant's arguments filed on 3/5/07 with respect to claims 62, 64, 70, 74-75, 81-84, 88, 90, 96, 100-101, and 107-111, have been fully considered but they are not persuasive.

4. Claims 62, 70, 74-75, 81-84, and 88 remain rejected under 35 USC 103(a) as being unpatentable over Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US Patent 5,917,830: hereinafter referred to as "Chen"), as was set forth in the Office Action of 8/10/06.

5. Claim 64 remains rejected under 35 USC 103(a) as being unpatentable over Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US

Patent 5,917,830: hereinafter referred to as "Chen") and further in view of Douche et al., (US Patent 6,005,629: hereinafter referred to as "Douche"), as was set forth in the Office Action of 8/10/06.

6. The Applicant presents five substantive arguments contending the Examiner's pending rejections of claims 62, 70, 74-75, 81-84, 88 under 35 USC 103(a) as being unpatentable over Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US Patent 5,917,830: hereinafter referred to as "Chen"), and of claim 64 under 35 USC 103(a) as being unpatentable over Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US Patent 5,917,830: hereinafter referred to as "Chen") and further in view of Douche et al., (US Patent 6,005,629: hereinafter referred to as "Douche"), as was set forth in the Office Action of 8/10/06, said arguments being presented also in support of newly added claims 90, 96, 100-101, and 107-111. However, after a careful consideration of the arguments, must respectfully disagree for the reasons that follow, and maintain the applicability of the references as the basis of the grounds of rejection against the newly added claims.

7. After providing a summary of the applied primary reference (Amendment of 3/5/07: page 16, lines 5-21; page 17, lines 1-21; page 18, lines 1-21), and outlining the salient features of claim 62 (Amendment of 3/5/07: page 19, lines 1-10), the Applicant argues that Schumann fails to disclose a "...buffer a transport stream containing both a selected program and a non-selected program because no non-selected program..." as in the claim (Amendment of 3/5/07: page 19, lines 11-21). The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references

individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In this particular case, the Schumann reference would meet the limitation by it's incorporation with the Chen reference, and thus wouldn't have to show this feature on its own. The inherency of the buffer was made to show that Schumann also has buffering capabilities, and provide one of ordinary skill in the art with a starting point for the proposed combination. Additionally, since Schumann also discloses that the set-top box also receives commercial broadcasts, as opposed to just DVDs, (Schumann: column 4, lines 12-32), it would be possible to have selected programs and non-selected programs processed therein, as well.

Secondly, after providing a summary of the secondary Chen reference (Amendment of 3/5/07: page 20, lines 1-9), the Applicant argues that Chen's buffer combines the main stream and the insertion stream, and thus a the buffer and multiplexer of Chen are not directed towards selected and non-selected programs (Amendment 3/5/07: page 20, lines 10-21; page 21, lines 1-21; page 22, lines 1-7), as in the claims. The Examiner flatly disagrees. Chen discloses that the main stream carries a plurality of programs, and that the IPU can insert the packets into one or more selected programs parsing them away from the non-selected programs (Chen: column 8, lines 9-15). This establishes to the Examiner that Chen's main stream contains both ***selected programs and non-selected programs***, and that the insertion module is selected program specific. Accordingly the Examiner maintains that the buffer and multiplexing of Chen when directed towards a main stream containing a plurality of programs reads on "...buffering a transport stream containing a selected program and a non-selected program..." as in the claims.

After summarizing the salient features of independent claim 88 (Amendment of 3/5/07: page 22, lines 8-16), the Applicant's note that Schumann fails to disclose a "demultiplexer..." as in the claims (Amendment of 3/5/07: page 22, lines 17-21; page 23, lines 1-21; page 24, lines 1-17). The Examiner respectfully disagrees. Since the Examiner notes that Chen's main stream containing a plurality of programs including a selected program and non-selected programs (Chen: column 8, lines 9-20), and that the syntax processor processes only already demultiplexed selected programs (Chen: column 9, lines 25-65), the Examiner notes that the main stream parser would actually read on the "...demulitplexer..." limitation in that it parses (i.e. demultiplexes) the selected program from the non-selected program (Chen: column 8, lines 30-60). Accordingly, the Examiner maintains that the Chen addresses the limitation. Additionally, it is noted that since Schumann discloses the ability for the set-top to also receive broadcast programs in addition for the DVD program (Schumann: column 4, lines 12-25), the Examiner posit that also not specifically disclosed that a demultiplexing function is obviously executed within the set-top box.

Furthermore, the Applicant argues that Schumann fails to read upon "...multiplexing..." limitation as in the claim (Amendment of 3/5/07: page 24, lines 17-21; page 25, lines 1-2). The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).*

The Examiner notes that Chen meets the "...multiplexing..." limitation, and therefore, Schumann on its own doesn't have to also address this limitation, but meets it with Schumann's combination with Chen.

Lastly, the Applicant argues that Chen also fails to read upon the "multiplexing..." function as in the claims (Amendment of 3/5/07: page 25, lines 3-21; page 26, lines 1-9). The Examiner flatly disagrees. It is noted that Chen discloses clearly discloses "multiplexing..." as in the claims (Chen: column 14, lines 13-25 and 45-50 and 64-67; column 16, lines 50-60), as in the claim. Accordingly, the Examiner maintains that Chen sufficiently addresses the "...multiplexing..." function with regards to selected and non-selected programs in a multi-program main stream.

A detailed rejection of newly added claims 90, 96, 100-101, and 107-111 follows.

### *Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 96, 100-101, and 107-111 are rejected under 35 USC 103(a) as being unpatentable over Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US Patent 5,917,830: hereinafter referred to as "Chen").

Regarding claim 96, the Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer discloses wherein the on-screen encoder processes the dynamic video frames by overlaying (Schumann: column 6, lines 1-25), as in the claim.

Regarding claim 100, the Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer discloses processes dynamic video frames by the MPEG encoder which is arranged to encode I frames with the on-screen display (Schumann: column 5, lines 25-50), as in the claim.

Regarding claim 101, the Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer, discloses wherein the MPEG encoder is arranged to encode subsequent P frames by prediction based on the I frames (Schumann: column 5, lines 10-20), as in the claim.

Regarding claims 107-108, the Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer, discloses adding make-up packets to each encoded frame as necessary to ensure that each encoded frame has as many transport packets as an original frame of the selected program, such that the makeup packets are null packets (Chen: column 7, lines 15-25; column 12, lines 50-67; column 13, lines 1-12), as in the claims.

Regarding claim 109, the Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer, has wherein the packets are PMT packets (Chen: column 6, lines 45-50), as in the claim.

Regarding claim 110, Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer, has wherein the buffer comprises a delay buffer (Chen: column 11, lines 25-67; column 12, lines 1-20), as in the claim.

Regarding claim 111, Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer, has wherein the MPEG encoder is arranged to encode frames of only the selected program with the on-screen display (Chen: column 13, lines 55-67; column 14, lines 1-15), as in the claim.

10. Claim 90 is rejected under 35 USC 103(a) as being unpatentable over Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US Patent 5,917,830: hereinafter referred to as "Chen") and further in view of Douche et al., (US Patent 6,005,629: hereinafter referred to as "Douche").

The Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream buffer has a majority of the features of claim 90, as was previously discussed above with regards to claim 88. However, the Schumann-Chen combination fails to disclose a time base which is slaved to the original frames as in the claim. Douche discloses a time base insertion module (Schumann: column 4, lines 35-50) which slaves OSD data to the original frames (Douche: column 4, lines 1-20) in order to avoid synchronization issues (Douche: column 3, lines 20-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Douche time base insertion module to slave the OSD data to the original data in order to avoid synchronization issues. The Schumann encoder now incorporating Chen's transport stream buffer Douche's teaching of slaved time bases, has all of the features of claim 90

*Allowable Subject Matter*

11. Claims 66, 76, 92, 102 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These dependent claims all recite the step for "...supplying first and second I frame markers..." which are not anticipated nor obvious over the art of record. Accordingly, these claims are amended as indicated above, and finally rejected claims 62, 64, 70, 74-75, 81-84, 88, 90, 96, 100-101, and 107-111 and non-considered claims 63, 65, 67-69, 71-73, 77-80, 89, 91, 93-95, 97-99, 103-106 are canceled, the application would be placed in a condition for allowance.

*Conclusion*

12. Applicant's amendment necessitated the new ground(s) of rejection presented against the newly added claims in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
June 24, 2007